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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,996	04/08/2004	Nicholas A. Matiash	29759/ITW-14675	9049
23482 7590 02/08/2007 WILHELM LAW SERVICE, S.C. 100 W LAWRENCE ST THIRD FLOOR APPLETON, WI 54911			EXAMINER KERN, KEVIN P	
			ART UNIT 1725	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/08/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/820,996	Applicant(s) MATIASH ET AL.	
	Examiner Kevin P. Kerns	Art Unit 1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16, 18-29, 31-36 and 38-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18-29, 31-36 and 38-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 and 04 October 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/13/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With regard to independent claim 1, the new claim limitation "non-flexible" lacks support in the originally filed specification, and thus is considered to be new matter.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to independent claim 1, the new claim limitation "non-flexible" is unclear, as there is no support in the specification on what type(s) of materials would be considered as "non-flexible". Furthermore, even metallic materials have some (although limited) degree of "flexibility".

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 18, 25, 28, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Shaputis (US 4,068,106).

Shaputis discloses a welding apparatus that includes a wire feeder and drive feed roller assembly, in which the drive roller assembly includes one or more drive rolls adapted to feed weld wire 12 having a predetermined diameter, with the drive roll(s) including opposing first and second sides defining a width dimension therebetween (Figures 2-4), thus defining drive roll body/bodies between the first and second sides; an outer circumferential body surface in the form of multiple (first, second, and third) circumferentially-extending grooves/channels/recesses (52,74) of angular cross-section corresponding to a diameter of weld wire 12 about a periphery of the drive roll body between the first and second sides; and a plurality of rims (elevated areas above the grooves/channels/recesses (52,74) extending radially outwardly from and along a major

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circumferential portion of the outer circumferential body surface), with the rims defining generally arcuate profiles at their outermost surfaces 72 and a diameter that is greater than remaining diameters (of the grooves/channels/recesses) measured along the width of the drive roll bodies (abstract; column 1, lines 51-68; column 2, lines 1-32 and 54-68; column 3, line 1 through column 4, line 47; and Figures 2-5).

7. Claims 1-16, 18-29, 31-36, and 38-40 insofar as definite (in view of the 35 USC 112, 1st and 2nd paragraph rejections) are rejected under 35 U.S.C. 102(e) as being anticipated by Bobeczko et al. (US 6,557,742). [NOTE: this rejection continues to apply for claims 18-29, 31-36, and 38-40; and would continue to apply for claims 1-16 without (upon removal of) the new matter "non-flexible" limitation.]

Bobeczko et al. disclose a drive roller for a wire feeding mechanism, in which the drive roller includes a plurality of drive rolls 34 adapted to feed weld wire W having a predetermined diameter from a wire feeding mechanism 10 to a welding gun G, with the drive rolls 34 including opposing first and second sides defining a width dimension therebetween (Figures 5A, 6A, and 7A), thus defining drive roll body (bodies) between the first and second sides; an outer circumferential body surface in the form of horizontal drive roll body surfaces above first and second circumferentially-extending grooves 96 (Figure 7A) of angular cross-section corresponding to weld wire W about a periphery of the drive roll body between the first and second sides; at least one elevated wire interface, which are separated from each other in Figure 7A, in the form of flexible cover 36 with a cylindrical outside surface 48 provided over drive roll 34 (Figures 5A,

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6A, and 7A) that conveys weld wire W and is displaced radially outwardly from the outer circumferential body surface, in which use of two separate elevated wire interfaces (Figure 7A) would define a channel therebetween and would define circumferential peaks (at the upper tangential surfaces of contact with the weld wire W), while forming an arcuate groove (at the lowermost portion of contact with the weld wire W); and a plurality of rims (areas above the grooves 96; it is noted that these grooves are interpreted as the "recesses" of independent claim 31) adjacent the vertices of the horizontal drive roll body surfaces at a base body surface of the drive rolls), with the rims defining generally planar profiles adjacent the vertices and a diameter that is greater than remaining diameters (within the grooves, or recesses of independent claim 31) measured along the width of the drive roll bodies (abstract; column 2, lines 54-67; column 3, line 1 through column 4, line 31; column 5, line 19 through column 9, line 42; and Figures 1, 5, 5A, 6, 6A, 7, and 7A).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bobeczko et al. (US 6,557,742) in view of Shaputis (US 4,068,106). [NOTE: this rejection would apply for claims 1-16 with full consideration of the new matter "non-flexible" limitation.]

Bobeczko et al. substantially disclose the features of above claims 1-16, 18-29, 31-36, and 38-40. Bobeczko et al. do not disclose the use of a "non-flexible" surface onto which the welding wire contacts.

However, Shaputis discloses a welding apparatus that includes a wire feeder and drive feed roller assembly, in which the drive roller assembly includes one or more drive rolls adapted to feed weld wire 12 having a predetermined diameter, with the drive roll(s) including opposing first and second sides defining a width dimension therebetween (Figures 2-4), thus defining drive roll body/bodies between the first and second sides; an outer circumferential body surface in the form of multiple (first, second, and third) circumferentially-extending grooves/channels/recesses (52,74) of angular cross-section corresponding to a diameter of weld wire 12 about a periphery of the drive roll body between the first and second sides; and a plurality of rims (elevated areas

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above the grooves/channels/recesses (52,74) extending radially outwardly from and along a major circumferential portion of the outer circumferential body surface), with the rims defining generally arcuate profiles at their outermost surfaces 72 and a diameter that is greater than remaining diameters (of the grooves/channels/recesses) measured along the width of the drive roll bodies, with the weld wire contacting the drive roll body on its "non-flexible" (metal) surface for the purpose of properly positioning the weld wire within the groove (abstract; column 1, lines 51-68; column 2, lines 1-32 and 54-68; column 3, line 1 through column 4, line 47; and Figures 2-5).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the a drive roller for a wire feeding mechanism, as disclosed by Bobeczko et al., by using the "non-flexible" surface onto which the welding wire contacts, as taught by Shaputis, in order to properly position the weld wire within the groove (Shaputis; abstract; and column 2, lines 27-32).

Response to Arguments

11. The examiner acknowledges the applicants' amendment received by the USPTO on January 24, 2007. In addition, an Information Disclosure Statement (IDS) received by the USPTO on December 13, 2006 has been considered, initialed, and a copy of the IDS has been provided with this Office Action. The amendments overcome prior objections to the abstract and claims, as well as prior 35 USC 112, 2nd paragraph rejections. However, new 35 USC 112, 1st and 2nd paragraph rejections have been

raised by the amendments to independent claim 1 (see above sections 2 and 4).

Claims 1-16, 18-29, 31-36, and 38-40 remain under consideration in the application.

12. Applicants' arguments with respect to claims 1-16 (as they apply to the new matter "non-flexible" limitation) have been considered but are moot in view of the new ground(s) of rejection.

13. Applicants' arguments filed January 24, 2007 have been fully considered but they are not persuasive.

With regard to the applicants' remarks/arguments on pages 13-15 of the amendment (addressing the rejections of independent claims 1, 18, and 31), it is noted in above sections 2, 4, 7, and 10 that the new limitation "non-flexible" of claim 1 is considered as new matter and indefinite, while also being newly rejected under 35 USC 103(a) -- if the new matter is given full consideration. The degree of flexibility of the drive rollers of Shaputis is limited, but still present, despite the drive rollers being of metallic material. Regarding claim 18, the applicants argue that there are no rims that extend radially outwardly from the drive roll body. The examiner respectfully disagrees, as Figure 7A of Bobeczko et al. shows a channel defined by the weld wire interface (upper tangential surface) of contact between weld wire W and cylindrical outside surface 48. Regarding claim 31, and again with reference to Figure 7A, Bobeczko et al. disclose that the wire interface width dimension (substantially the same as the width of the weld wire) is less than the width dimension of the drive roll.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kevin P. Kerns whose telephone number is (571) 272-1178. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin P. Kerns *Kevin Kerns 2/3/07*
Primary Examiner
Art Unit 1725

KPK
kpk
February 3, 2007